



THE UNIVERSITY OF
NOTRE DAME
A U S T R A L I A



ANZAHPPE

Australian & New Zealand
Association for Health
Professional Educators

ANZAHPPE 2018

Oral presentation at 14:30
Harbour View 2
Section 2E
Paper # 111

A/Prof Michael SH Wan
Medical Education Unit
School of Medicine, Sydney
University of Notre Dame Australia
Member of the International Oversight Committee, NBME



THE UNIVERSITY OF
NOTRE DAME
A U S T R A L I A

**Using an internationally validated clinical science exam
formatively to prepare final-year medical students for the
summative exit examination.**

Wan SH, Rhee J

School of Medicine, Sydney

University of Notre Dame Australia.



Background:

- School of Medicine, Sydney offers 4-year graduate entry MD program.
- The International Foundations of Medicine® (IFOM®) Clinical Science Exam (CSE) is developed by the National Board of Medical Examiners (NBME) in USA to assess knowledge considered essential for the provision of safe and effective patient care.
- It consists of a 4-hour examination with 160 MCQ questions covering all disciplines of medicine calibrated to the USA licensing standard.
- Individualised performance feedback is given two weeks after the exam.



THE UNIVERSITY OF
NOTRE DAME
A U S T R A L I A

Sample IFOM MCQ



A 77-year-old man comes to the physician because of a 2-month history of 2- to 3-minute episodes of dizziness that occur in bed when he sits up or rolls onto his left side. He has a history of recurrent ear infections during childhood. He underwent coronary artery bypass grafting 3 years ago. He has hypertension. Current medications include clopidogrel and atenolol. His blood pressure is 144/86 mm Hg. There is a left-beating nystagmus that begins within 10 seconds and lasts for 1 minute after his head is tilted 30 degrees below the examination table and turned to the left. The remainder of the examination shows no abnormalities. Which of the following is the most likely diagnosis?

- A) Benign positional vertigo
- B) Cerebellopontine angle schwannoma
- C) Meniere disease
- D) Vertebrobasilar transient ischemic attacks
- E) Vestibular neuropathy



THE UNIVERSITY OF
NOTRE DAME
A U S T R A L I A

Sample Individualised report



Examinee Performance Report

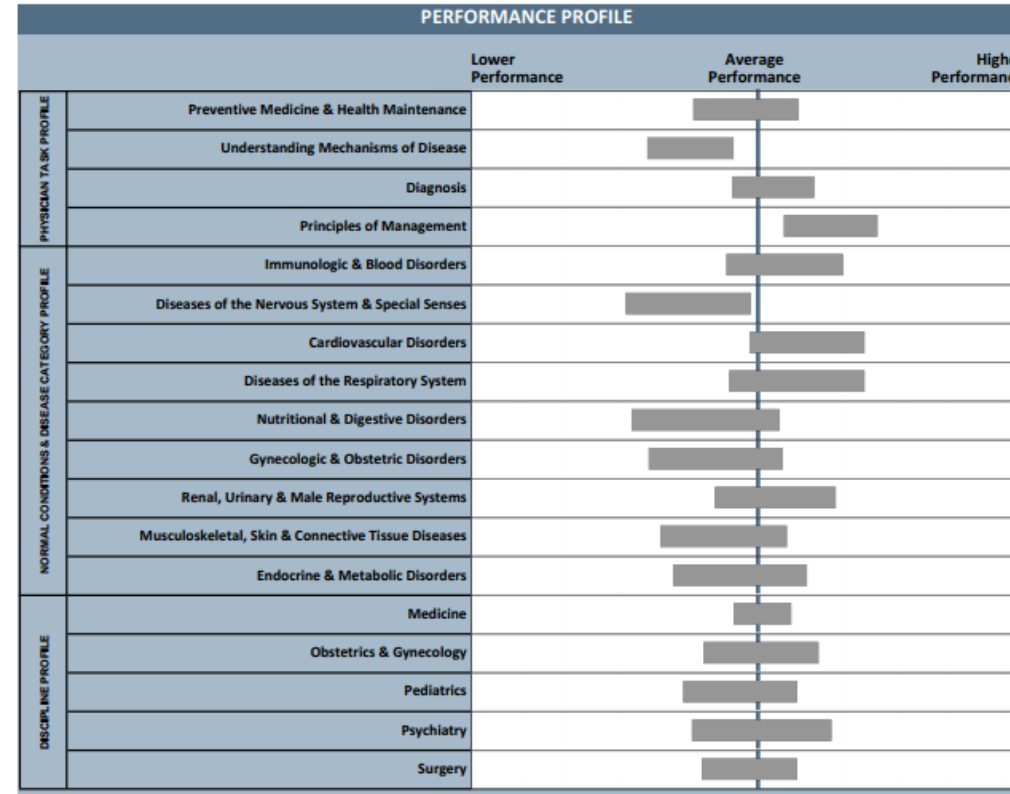
Name:

ID:

Test Date:

Medical School:

Total Test Standard Score:



The above Performance Profile is provided to aid in self-assessment. The vertical line represents the average performance of the IFOM CSE ICG (International Comparison Group) on the total test. Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. Striped shading of a band indicates that your performance band extends beyond the displayed portion of the scale.



Aim:

- The aim of the study was to determine the usefulness of IFOM[®] in preparing final year students for the summative MCQ examination.



Methods:

- The IFOM[®] exam was offered formatively to the final-year students (Year 4) 8 weeks before the summative graduating MCQ examination in 2016 and 2017.
- Students sat the 4-hour examination under invigilated conditions either online or using pen and paper.
- The correlation between the IFOM[®] and summative MCQ results was analysed.
- Students' feedback on using IFOM was also collated.

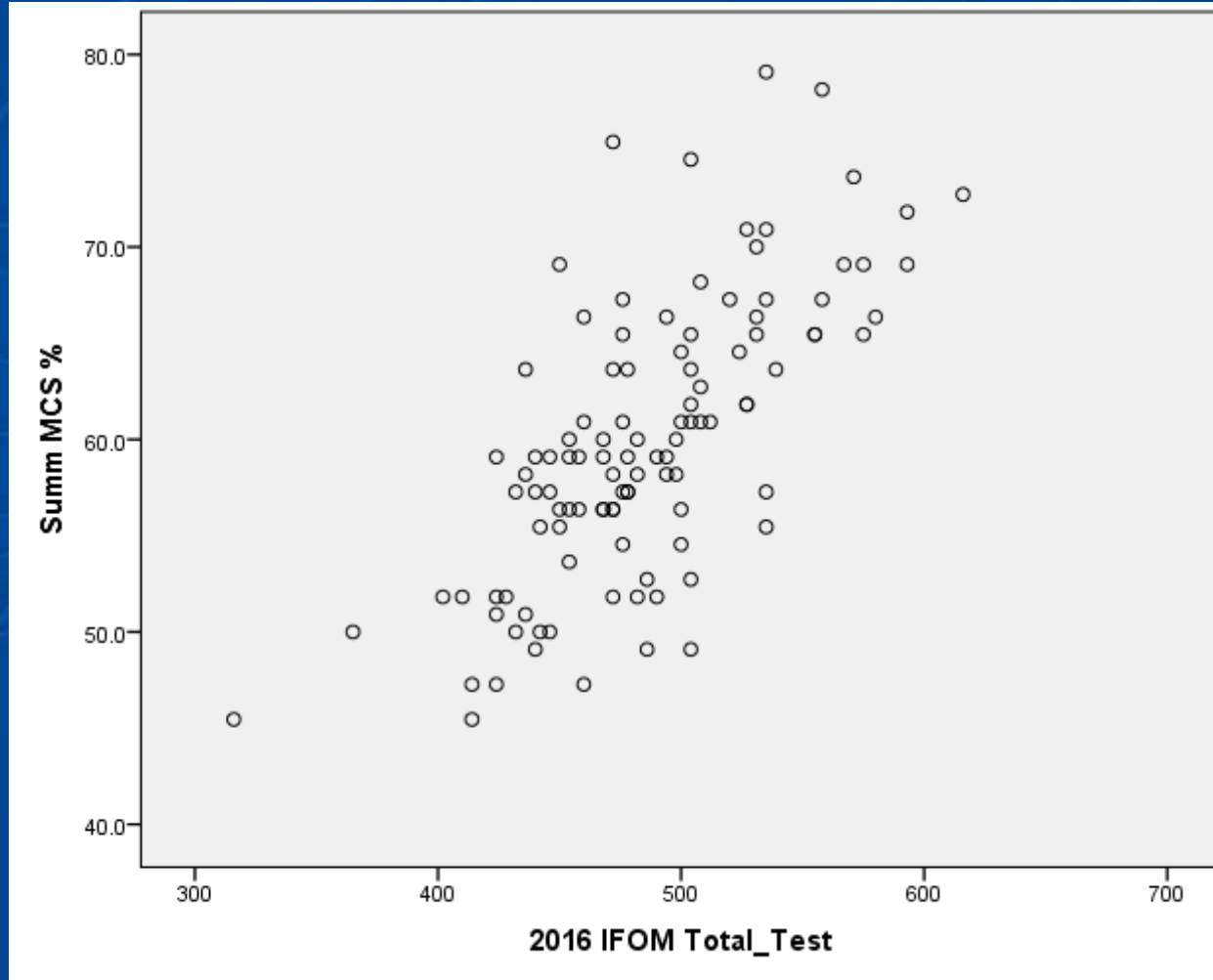


Results (1):

- A total of 108 and 82 students participated in the IFOM[®] in 2016 and 2017 respectively.
- The Pearson correlation between the IFOM[®] and summative MCQ scores was 0.70 ($p < 0.0001$) and 0.66 ($p < 0.0001$) respectively.
- Students' feedback strongly agreed that the IFOM[®] could identify their area of deficiency and help in preparing them for the summative examination.

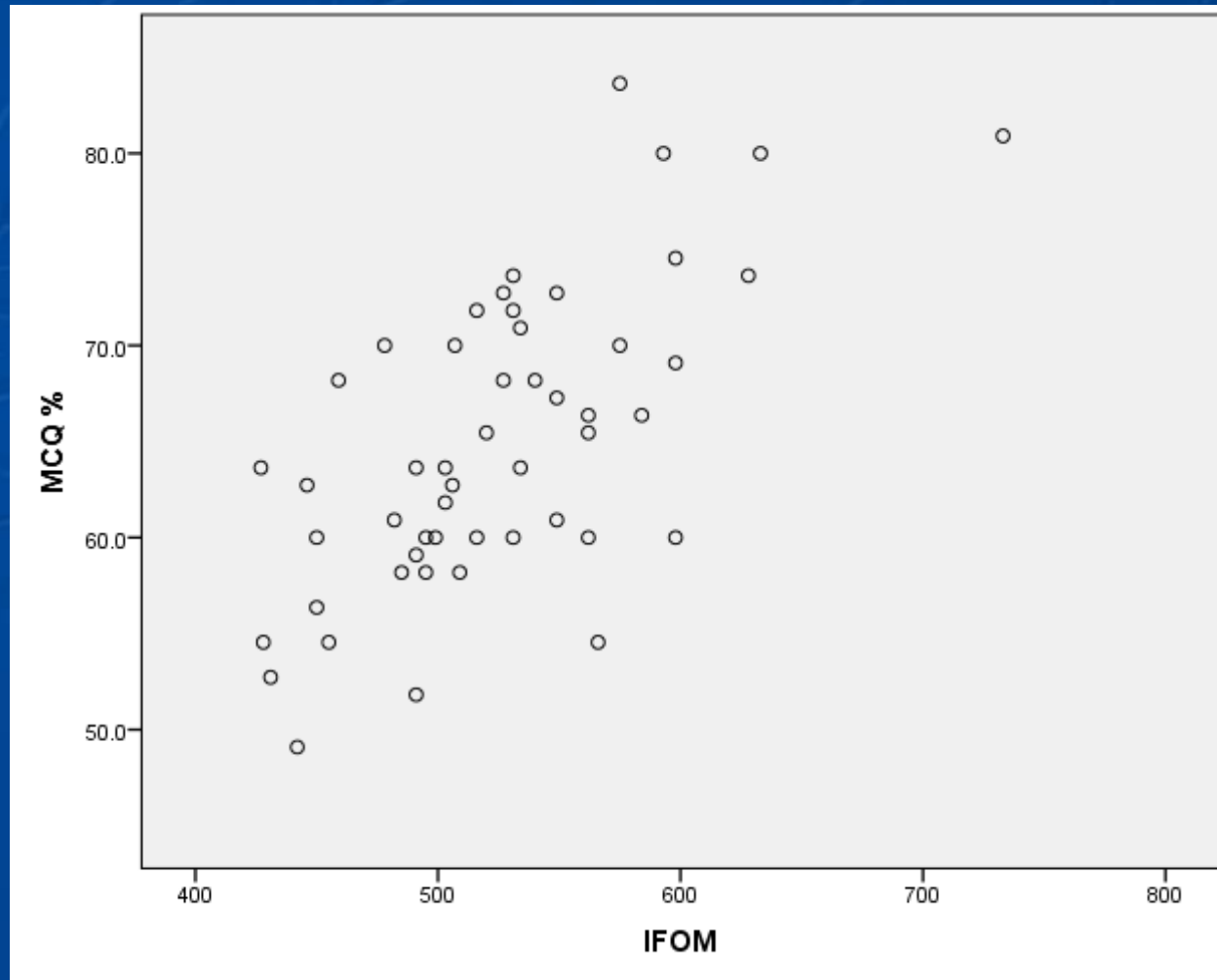


Results- 2016:





Results- 2017:





Discussion:

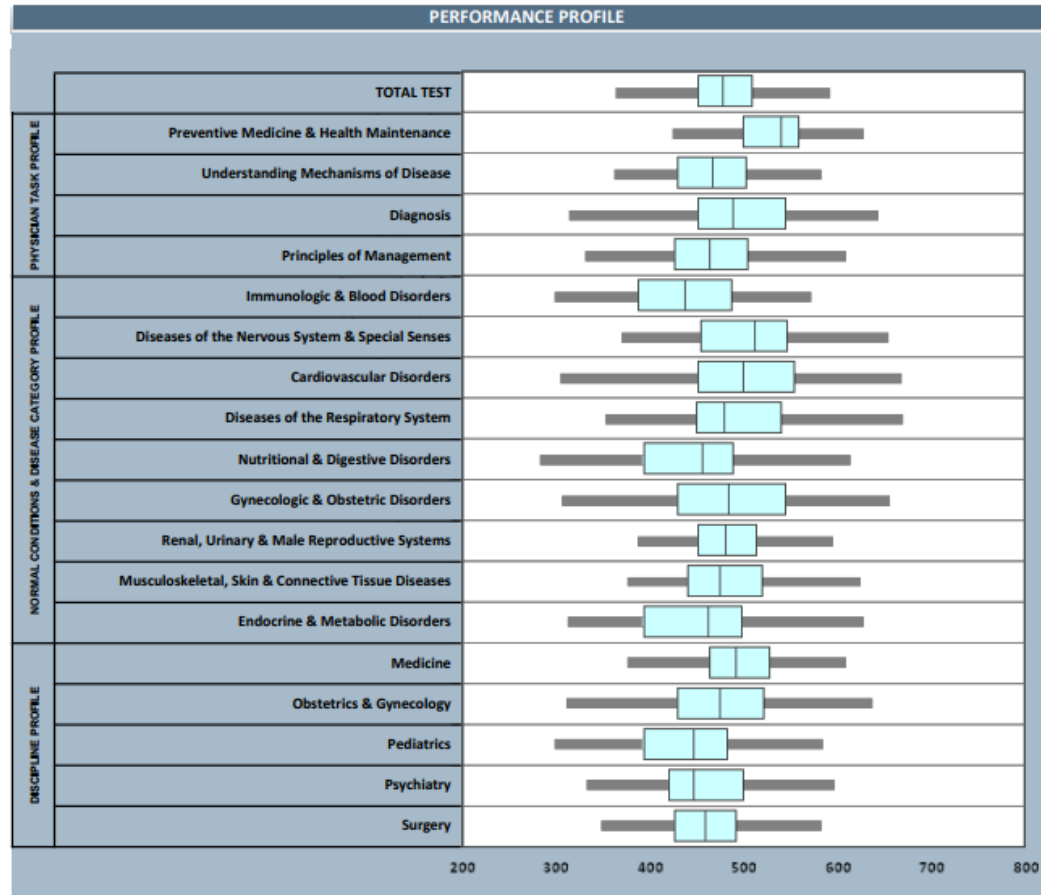
- The internationally calibrated IFOM[®] seems to be useful for final-year students to use formatively to prepare for their graduating written examination.
- It could also provide the School with metadata to identify relative gaps in the curriculum teaching and delivery in relation to students' performance in particular disciplines.



School: University of Notre Dame Australia

Number of Examinees: 108

Test Date(s): 08/23/2016





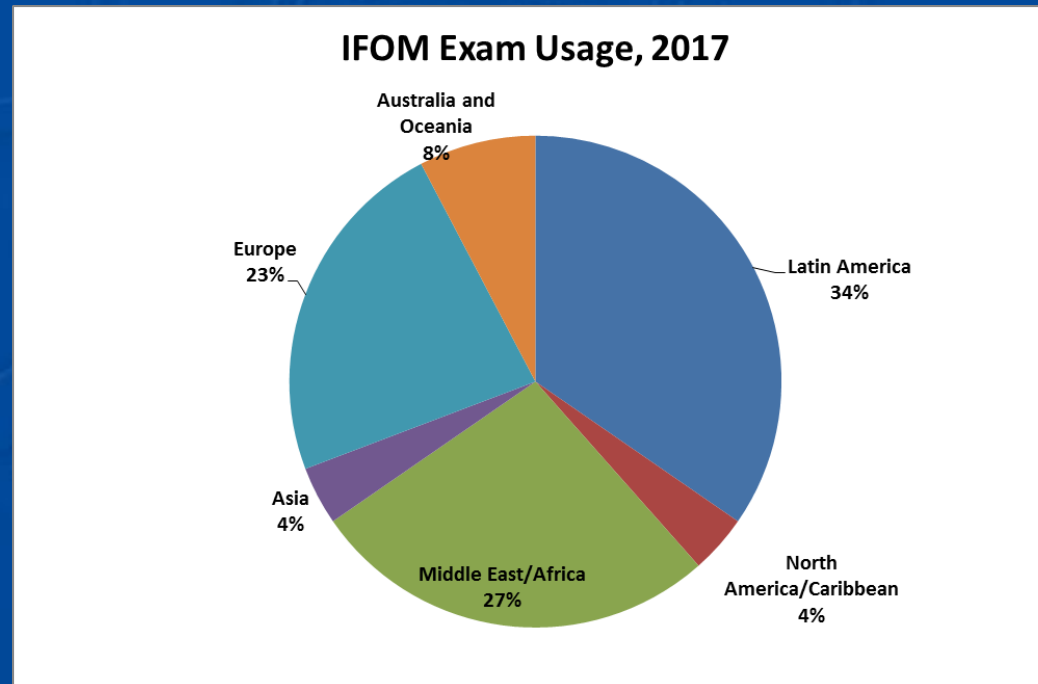
Additional Uses of IFOM

- Feedback enables students and schools to compare students' IFOM CSE scores to corresponding USMLE Step 2 CK scores
- Feedback also enables schools to compare student scores to an “international comparison group” comprising >8000 IFOM examinees from around the world
- IFOM also offers a comprehensive Basic Science Exam calibrated to USMLE Step 1; normally at the end of the foundation (pre-clinical year) prior to clinical rotations



Additional Uses of IFOM

- IFOM BSE and CSE are used by different schools and ministries around the world for formative, summative, and benchmarking purposes





Conclusion & Take Home message:

- The IFOM[®] Exam could serve as an effective formative practice exercise for students
- Save resources in developing a new set of formative questions yearly



THE UNIVERSITY OF
NOTRE DAME
AUSTRALIA

School of Medicine, Sydney

michael.wan@nd.edu.au

